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Role of Remittances in Economic Growth in Pacific Island Countries: A Study of Samoa

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Abstract

Remittances have been a great support to Pacific island countries (PICs). Aside from providing additions to domestic savings and, hence, real resources, they have been one of the major sources of foreign exchange earnings. In the context of falling exports and limited options to diversify their exports, inward remittances have assumed greater importance. This paper examines the nexus between growth and remittances in Samoa.

Keywords

remittances, economic growth, financial sector development, bounds testing

Introduction

The first round effects of the financial crisis in the late 2007 in the United States (US), which spread to other advanced countries due to their exposure to the US mortgage-backed securities, spared the Pacific island countries (PICs), as the latter did not have any such exposure. However, the second and third round effects of the declining economic activities and the global recession are now impacting all PICs through real channels rather than through financial channels.

The real channels are commodity prices, trade volumes, tourism and remittances (Asian Development Bank 2009a). Due to decreases in commodity prices consequent to lower demand for them in advanced countries, Papua New Guinea (PNG), which exports mineral and non-mineral products, and the Solomon Islands, which exports timber, are presently experiencing a fall in

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incomes. In addition to exporters' incomes, revenues of governments have also been adversely impacted by a fall in receipts from export related taxes and royalties. Consequently, the negative effects of the fall in commodity prices are expected to be substantial as the recession is prolonged.

As regards trade, a fall in petroleum prices since the peak price in mid 2008, would benefit the fuel-importing PICs. Hence, the negative effects would be relatively modest. However, the fall in incomes and wealth and consequent decrease in the consumption of discretionary goods and services in developed countries would lead to a decline in tourism. The relevant tourism source markets for PICs, namely, Australia, Japan, New Zealand and the US, are in recession. Tourism traffic has already begun to slow down. Similarly, remittance inflows from the nationals of PICs resident in the advanced countries are expected to register declines, because of rising unemployment or fall in opportunities for overtime work.

Inward remittances are important notably for Samoa and Tonga, and to a lesser extent for Fiji, Kiribati and Tuvalu (World Bank 2006a). Although there are indications that the global recession would result in decline in remittances, a report by the Asian Development Bank (2009b) strikes an optimistic note by referring to the resilience shown by remittances in recent years. For example, remittance inflows to PICs rose during 2000 and 2001, and again in 2005 and 2006, despite slowdowns in economic growth in Australia and New Zealand. Further, the implementation of seasonal worker schemes between PICs and Australia and New Zealand is expected to provide a new and steady source of remittance inflows (Asian Development Bank 2009b).

Response to global crisis by PICs has been mixed, as it is influenced by the availability of both domestic resources and international reserves. Only two PICs have some leeway in terms of fiscal space and levels of foreign exchange reserves to launch fiscal stimulus initiatives. They are PNG and Vanuatu, as they are in better financial shape due to accumulation of international reserves, thanks to commodity price boom in case of PNG and budget surpluses as a result of prudent budgetary policies in the case of Vanuatu. Other PICs have, however, been cautious, as they are constrained by the current level of international reserves, fearing that sizeable fiscal deficits would be inflationary, spilling over into demand for imports and exerting excess pressure on exchange markets.

In these circumstances, PICs are conscious of conserving international reserves needs. In the same vein, maintaining and even attracting greater inflows of remittances by offering additional incentives as well as by persuading banks to lower charges on transfer of funds at both points of sending and receiving have been given full attention. Remittance inflows have helped PICs in several ways. Aside from adding to the international reserves and real

resources of the country, thereby reducing the inflationary pressures arising out of fiscal deficits, remittance inflows increase the liquidity in the banking system, enabling banking institutions to reduce interest rates as well to provide greater credit to the private sector for productive purposes and growth.

This paper investigates the relationship between economic growth and remittances in Samoa, which averaged about 25 percent of GDP during 2004-2008. This is also the period during which bank lending to the private sector also registered a high growth. The indications are that remittance receipts are now increasingly entering the system through banking channels, improving greater financial intermediation. The latter facilitates transfer of funds to investors in the private sector for investment in productive areas. This paper is organized into five sections. The following section provides a brief review of economic literature on the linkages between remittances and growth. The third section examines recent trends in remittances to PICs and Samoa. The fourth section outlines the methodology adopted to undertake the empirical study. The fifth section discusses the results of the empirical investigation. The last section presents some conclusions with policy implications.

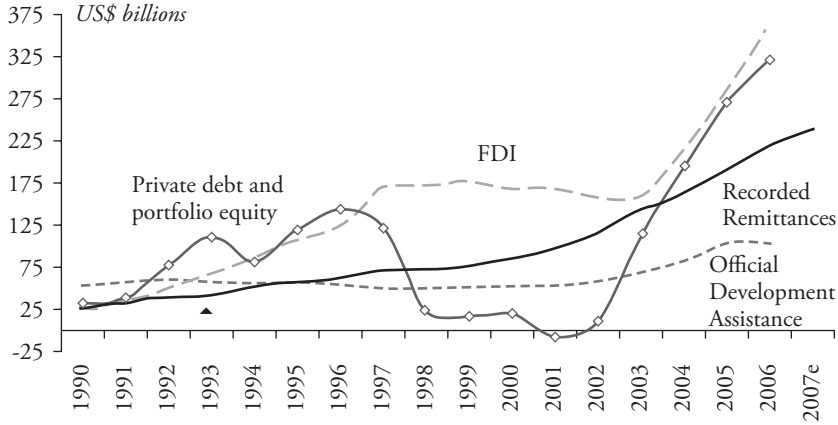
Literature Review

Remittances are defined as private income transfers that take place between family members. In many cases, one or more family members live and work abroad while regularly transferring, or remitting, income back to the remaining family unit in the home country (Chami et al. 2006). As Figure 1 shows, remittances have surpassed official development assistance of developing countries.

Remittances flows to developing countries have grown substantially, increasing from $22 billion in 1985-1989 to $327 billion in 2008 (Table 1).

Remittances have been playing an important role in developing countries by boosting economic growth and reducing poverty, as well as enabling the recipient families to increase consumption (Maclellan and Mares 2005; Ratha 2007). Their contribution to growth is, however, dependent upon the scale and intensity of financial sector development. The latter is signified by the presence of deposit-accepting banking institutions and financial deepening. Further, remittances are an important source of external capital for many developing countries and substantially contribute to poverty reduction (Adams and Page 2003: Ratha 2003; World Bank 2006b). By adding to the stock of international reserves, remittances improve a country's credit worthiness by improving the country-risk rating. This in turn reduces the cost of borrowing money in international markets and enhances its access to international capital markets.

Figure 1 Remittances and capital flows to developing countries*



Source: World Bank (2006b, 2007)

* *Remittances data for 2008 was $327 billion.*

In economies where financial markets are underdeveloped, remittances may alleviate credit constraints and act as a substitute for financial development and growth. However, if remittance inflows are spent on consumption primarily, rather than accumulating as savings or productive investments, the impact on growth is likely to be minimal. Adams et al. (2008) in their studies of the effects of remittances on spending behavior of households in Ghana find that remittances when spent, just like any other source of income, on consumption did not have a significant impact on growth.

Implementation of financial sector reforms—including deregulation of interest rates and encouraging new entrants to the banking sector—for allowing greater competition among the banking institutions has facilitated a healthy shift of remittance flows from informal to formal banking arrangements (Browne 2006). As and when remittances are deposited with financial institutions, a cash economy gradually evolves. Consequently, a large percentage of the population would have access to increased credit facilities for education, home mortgages, and small business enterprise (Browne 2006). Shabaz et al. (2007), using Pakistan as a case study, conclude that appropriate financial sector reforms would have a positive impact on financial sector development.

Specifically in Pacific islands, three phases of emigrants' motivations behind steady remittances, evolving over their careers, have been identified by an IMF study (Browne 2006). In the first phase, remittances are meant for meeting basic consumption needs of families living in home countries; and later the expenditures extend to cover telephones, sound systems computers, and

Table 1

Remittance, Capital Inflows to Developing Countries from 1990-2007*

(In Billions)	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2005**	**2007e**
Remittances	31	34	40	42	52	57	62	71	73	77	84	95	116	143	163	194	226	251
FDI	25	35	50	67	89	105	128	169	170	178	166	173	161	162	226	289	368	460
Private Debt and Portfolio Equity	33	38	80	112	81	122	144	122	23	18	19	(17)	9	109	196	292	393	543
ODA	54	58	62	56	59	59	56	49	52	53	54	52	58	69	79	107	104	104

Source: The World Bank—Briefing 3: Remittance Trends 2007 (updated July 10, 2008); e = estimate of 2007.
** In 2008, estimated remittance inflow to developing country was $327 billion.*

outboard motors. The second phase is for human capital investment for the next generation, which includes support for schooling in the home country and later for support for higher education abroad. The next phase focuses on future retirement needs if migrants decide to return home, including long-term needs such as real estate purchases and house building as well as business investment purposes (Browne 2006).

Brown and Ahlburg (1999) in their study of Samoa and Tonga have documented that besides remittances through formal channels, remittances sent or contributed through informal channels are sizeable. Maclellan and Mares (2005) point out that migration has become an outlet for many PICs, including many small islands states, such as Niue, Kiribati, Tuvalu, Wallis and Futuna. Overall, remittances spent on expenditures beyond daily consumption enhance productive capacities of the economy, thereby contributing to economic growth.

The transaction costs involved in sending remittances to PICs have, however, been high. The transaction cost of remittance depends on a number of market factors. These include (a) the number of competitors (service providers) in the market, which depends on the size of that particular remittance corridor and on legal regulations; (b) the cost of remittance providers, which depends on the method and technology used; (c) the customer needs and preferences, which may include choices available depending on the required speed, the needs at the destination, as well as the sender's legal status; and (d) the consumers" awareness of choices available to them (Ratha and Riedberg 2005).

Gibson et al. (2007) estimated that transfer of funds costs about US$40 million per year. Among the channels used by the remitters in the region, which include Western Union money transfers, bank drafts and automated teller machines (ATM), the latter is the cheapest of all. Ratha and Riedberg (2005) note that transaction costs in remittance transfer can be substantially reduced through the use of ATM technology, which reduces labor costs considerably. A World Bank study (2006) reports that remitting NZ$100 (UD$168) to Tonga through channels other than ATM costs 25 to 30 percent of the total remitted. However, ATM technology has yet to become popular.

Trends in Remittances in Pacific Island Countries

Trends in PICs

In the Pacific region, Fiji, Samoa and Tonga receive substantial remittance inflows in absolute terms compared to other PICs. Remittance inflows of Samoa, Tonga and Kiribati account for a large proportion of their respective gross domestic products (Table 2).

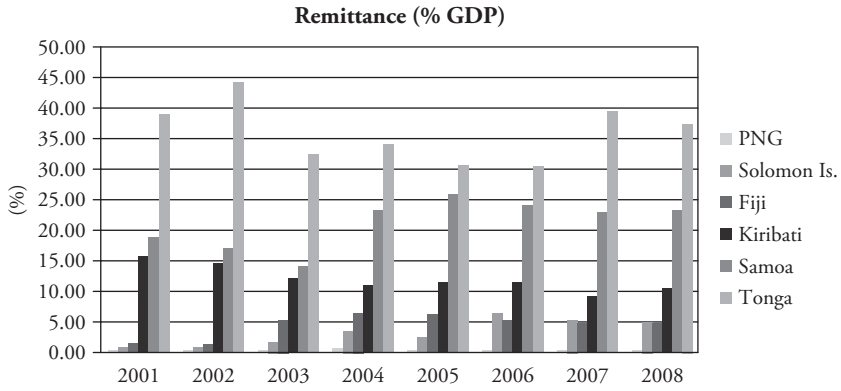
Table 2

PICs: Remittances (US$ millions): 1970-2008

Selected Pacific Country	1970-1974 (Average)	1975-1979 (Average)	1980-1984 (Average)	1985-1989 (Average)	1990-1994 (Average)	1995-1999 (Average)	2000-2004 (Average)	2005	2006	2007	2008
PNG	n.a.	10 (0.6)	5 (0.2)	9 (0.3)	17 (0.4)	13 (0.3)	11 (0.3)	13 (0.3)	13 (0.2)	13 (0.2)	13 (0.2)
Solomon Is.	n.a.	n.a.	n.a.	n.a.	n.a.	2 (0.6)	4 (1.6)	7 (2.4)	20 (6.0)	20 (5.1)	20 (4.8)
Fiji	n.a.	4 (0.5)	8 (0.7)	26 (2.2)	24 (1.6)	30 (1.5)	73 (3.6)	184 (6.2)	165 (5.2)	165 (4.8)	175 (4.7)
Kiribati	n.a.	2 (4.5)	2 (6.9)	4 (15.8)	6 (19.3)	7 (15.2)	7 (13.3)	7 (11.4)	7 (11.3)	7 (9.0)	9 (10.7)
Samoa	n.a.	10 (13.2)	19 (19)	34 (33.8)	37 (28.1)	44 (19.6)	54 (18.9)	110 (25.9)	108 (24.0)	120 (22.9)	135 (24.0)
Tonga	2 (7.5)	6 (16.4)	10 (16.5)	19 (22.5)	21 (15.4)	n.a.	61 (37.7)	66 (30.6)	72 (30.5)	100 (39.6)	100 (36.9)

Figures in parentheses denote percentages to GDP.
Source: World Bank (2008, 2009).

Figure 2 The Trends of Remittance in Six PICs



Source: World Bank (2008, 2009).

Figure 2 illustrates the rising trend in remittances inflows. In 2007 and 2008, Samoa is among the highest recipients of remittances as a percentage of GDP in the Pacific region with 23% (2007) and 25% (2008), respectively.

Table 3

Top Ten Remittance Recipients of 2007 (as percentage of GDP)

Country	Percentage of GDP	USD (millions)
Tajikistan	46	1,691
Tonga	39	100
Moldova	34	1,498
Lesotho	28	443
Guyana	26	278
Lebanon	24	5,765
Samoa	23	120
Jordan	22	3,434
Honduras	21	2,625
Kyrgyz Rep.	19	715

Source: World Bank (2008, 2009)

Table 4

Samoa: Selected Key Indicators

Land Area (Sq.km.'000)	2.8
Population (2006: '000)	186
Per Capita GDP (US$) Current Prices (2006)	2,277
Aid Per Capita in US$ (2006)	254
Aid as percentage of GDP (2006)	11.2
Annual Average Growth Rate in percent (2001-2007)	3.1
Annual Average Inflation in percent (2001-2007)	5.3
Overall Budget Balance as percent of GDP (2001-2007)	-0.7
Current Account Balance as percent of GDP (2001-2007)	-4.3

Source: ADB (2006), UNESCAP (2007).

Samoa is one of the two PICs that figure in the list of top 10 remittances recipient countries in 2007 (Table 3). In 2007, remittances accounted for 23 percent of GDP of Samoa, while Tonga was the second top-most country with remittances accounting for 39 percent of GDP.

Remittances are extremely important to Samoa, whose key indicators are given in Table 4. As noted earlier in regard to developing countries in general, remittances have been providing substantial benefits to Samoa as well. These include financing household consumption as well as providing for the schooling of young members of the household. Further, remittances in recent years have been instrumental in providing the much-needed stability to annual balance of payments of the country by improving the current account as growing trade imbalances, to a large extent, are reduced.

Remittances will continue to be the main source of foreign exchange to the Samoan economy. Exports of Samoa have been declining since mid 2008, due to a fall in the only manufactured exports, namely, automotive harness products for Australian automobile industry following the scaling down of the Yazaki Samoa. In the context of falling agricultural exports, remittances have been a significant source of support to its foreign exchange earnings.

Data, Modeling and Methodology

Empirical investigation of the nexus between remittances and growth seeks to focus on possible linkages between expenditures out of remittances and GDP.

However, in the context of the paucity of disaggregated expenditure data in Samoa, our study is constrained to be simple. We employ the aggregated data on remittances reported on an annual basis by the World Bank (2009).

If remittance inflows are duly deposited by the recipients in the country's banking system, either as additions to savings and current accounts or long-term deposits or both, the bank's reserves would increase, and increases in liquidity would contribute to a rise in provision of loans to the private sector. We therefore hypothesize that remittances and credit to the private sector are positively associated, and a rise in the private sector activities, facilitated by increases in credit, lead to a rise in production of goods and services. As the domestic market is small, a rise in production of goods and services would result in a rise in exports, leading to higher economic growth. The data on private sector credit and GDP data on an annual basis, covering a 28-year period (1981-2008), are drawn *from International Financial Statistics* published by the International Monetary Fund (2009) and from *World Development Indicators* published by the World Bank (2009).

The model is written as follows:

$$RGDP = f(REM, PCR, XGS) \quad (1)$$

where
RGDP = real GDP in millions of tala;
REM = remittances as percent of GDP;
PRC = credit to private sector as percent of GDP;
XGS = exports of goods and services as percent of GDP.

Bounds Testing Approach

Since the number of observations is not large enough for estimating a long-run money and output model, we resort to the autoregressive distributed lag (ARDL) procedure, developed by Pesaran et al. (2001). The ARDL bounds testing model is a general dynamic specification, which applies lags of the dependent variable and the lagged and contemporaneous values of the explanatory variables, through which short-run impacts can be directly assessed and long-run relationship indirectly estimated.[1] For econometric analysis, all variables are duly transformed into their natural logs.

[1] The use of this technique is also based on its advantages over the conventional cointegration procedure. See, for example, Pesaran et al. (2001), Chang et al. (2001), Narayan and Smyth (2005), Akinlo (2006), among others for the advantages and applications of ARDL.

An ARDL model of Equation 1 is constructed as follows:

$$\begin{aligned}\Delta LRGDP_t &= \beta_0 + \beta_1 LRGDP_{t-1} + \beta_2 LREM_{t-1} + \beta_3 LPCR_{t-1} \\ &+ \beta_4 LXGS_{t-1} + \sum_{i=1}^{p} \alpha_{1i} \Delta LRGDP_{t-i} + \sum_{i=0}^{p} \alpha_{2i} \Delta LREM_{t-i} \\ &+ \sum_{i=0}^{p} \alpha_{3i} \Delta LPCR_{t-i} + \sum_{i=0}^{p} \alpha_{4i} \Delta LXGS_{t-i} + \varepsilon_t\end{aligned} \tag{2}$$

There are two steps in examining the relationship between real output, remittances, private credit and exports. First, we estimate Equation (2) by ordinary least squares techniques. Second, the existence of a long-run relationship can be traced by imposing a restriction on all estimated coefficients of lagged level variables equal to zero. Hence, bounds test is based on the F-statistics (or Wald statistics) with the null hypothesis of no cointegration ($H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$) against its alternative hypothesis of a long-run cointegration relationship ($H_1 : \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq 0$).

Since the F-statistics used for this test has a nonstandard distribution, Pesaran et al. (2001) have generated two different sets of critical values for given significance levels. The first set assumes that all variable are integrated of order zero, I(0), and the second set assumes all variables are integrated of order one, I(1). If the computed F-statistic is greater than the upper critical bounds value, then the null hypothesis is rejected. In contrast, if the computed F-statistic is smaller than lower critical bounds value, it indicates no long-run relationship between variables. If the computed F-statistic lies between lower and upper bounds values, then the test becomes inconclusive.

Granger Causality Test

We conduct the Granger causality test in the parsimonious vector error correction model (PVECM) framework to investigate the short-run causality relationship between real output, remittances, private credit and exports. In PVECM framework, we regress the change in variables (both endogenous and exogenous) on lagged deviations and it can be written as follows:[2]

$$\Delta Z_t = \Pi Z_{t-1} + \Gamma_1 \Delta Z_{t-1} + \Gamma_2 \Delta Z_{t-2} + \ldots + \Gamma_{p-1} \Delta Z_{t-p+1} + u_t$$

where $\Delta Z_t = [\Delta LRGDP, \Delta LREM, \Delta LPCR, \Delta LXGS]'$, $\Pi = -\left(1_m - \sum_{i=1}^{p} A_i\right)$

[2] Engle and Granger (1987) and Irandoust and Ericsson (2004) provide a comprehensive discussion of this technique.

and $\Gamma_i = -\left(1 - \sum_{j=1}^{i} A_j\right)$. For $i = 1, \ldots, p-1$.

Γ reflects the short-run effect of the changes in Z_t.

Meanwhile, the (4 × 4) matrix of $\Pi = (\alpha\beta)'$ contains the speed of adjustment to long-run equilibrium (α) and the long-run information (β) such that the term $\beta' Z_{t-p}$ represents the (n - *1*) cointegrating vector on the model.

The Granger causality test is conducted by computing the F-statistics (or Wald test) based on the null hypothesis that the set of coefficients (Γ_i) on the lagged values of explanatory variables are not significantly different from zero. If the null hypothesis is rejected, then it is concluded that the explanatory variables cause the dependent variables. If Π is found not significant based on the t-statistics, then both the explanatory and dependent variables do not have a stable relationship in the long run.

Results

The results of bound tests are reported in Table 5. The test results reject the null hypothesis of no long-run relationship between real output, remittances, private credit and exports at 1% significance level since the computed F-statistics are found significant in the equation with LRGDP as the dependent variable. However, the respective computed F-statistics in the equations with other variables as dependent variables are found not significant.

The only one significant long-run equation obtained by bounds testing procedure is:

$$\begin{array}{lllll} LRGDP_t = & -58.786 + 2.114LREM^{**} + 3.868LPCR^{**} + 9.954LXGS^{**} & & & \\ t = & (-2.105) & (2.737) & (2.781) & (3.0150) \end{array} \quad (4)$$

** indicates significance at 5% level. Figures in parentheses are t-statistics.

In the equation above, we find that the coefficients of the explanatory variables have the theoretically expected positive signs. Further, they are also statistically significant. The results confirm that remittances, private credit and exports promote economic growth. As for the magnitudes of coefficients, we observe that exports of goods and services have stronger effects on real output than the other two variables, namely, private credit and remittances.

A number of diagnostic tests were performed. The diagnostic test results show that disturbance terms are normally distributed and serially uncorrelated

Table 5

Results of Bound Tests

Dependent Variable	**Computed F-statistic**			
LRGDP	7.7888***			
LREM	1.2965			
LPCR	1.2805			
LXGS	1.4337			
	Pesaran et al. (2001)[a]		**Narayan (2005)[b]**	
Critical Value	Lower bound value	Upper bound value	Lower bound value	Upper bound value
1 per cent	4.29	5.61	4.614	5.966
5 per cent	3.23	4.35	3.272	4.306
10 per cent	2.72	3.77	2.676	3.586

[a] Critical values are obtained from Pesaran et al. (2001), Table CI(iii) Case III: Unrestricted intercept and no trend, p. 300.
[b] Critical values are obtained from Narayan (2005), Table case III: unrestricted intercept and no trend, p. 10. *, ** and *** indicate significance at 10%, 5% and 1% levels, respectively.

with homoscedasticity of residuals, confirming that the model has a correct functional form. Moreover, the CUSUM and CUSUM of Squares plot show that the parameters of the model are stable over time.[3]

Given the results of bounds test, we proceed to undertake Granger causality tests. Since the Granger causality tests require that all variables in Equation 1 must be integrated of order one, we use two unit root tests—the augmented Dickey and Fuller (ADF) (1979) and Ng and Perron (2001)—to examine the order of integration of each variable under study. The results of both unit root tests (Table 6) indicate that all variables are integrated of order one. Table 7 shows the results of long-run and short-run Granger causality tests.

Among the four equations, ECT is statistically significant with the expected negative sign only in the equation with LRGDP as dependent variable. The results, thus, confirm the result obtained by the bound tests that there is only one cointegrating equation, namely, the equation with LRGDP as dependent

[3] The CUSUM and CUSUM of Squares plots are available upon request.

Table 6

Results of Unit Root Tests

Variable	ADF		Ng and Perron	
	Level	First Difference	Level	First Difference
LRGDP	-0.9307 (0)	-4.1269** (0)	-1.8483 (0)	-12.6420** (0)
LREM	-2.1362 (0)	-4.8305** (0)	-4.4507 (0)	-12.9806** (0)
LPCR	-2.8756 (0)	-6.3891** (0)	-10.2536 (0)	-12.1329** (0)
LXGS	-2.6333 (3)	-5.4608** (0)	-5.9232 (0)	-12.5241** (0)

Notes: The ADF critical values are based on Mckinnon. The optimal lag is chosen on the basis of the Akaike Information Criterion (AIC). The null hypothesis for both ADF and Ng-Perron tests is that a series has a unit root (non-stationary) while the null hypothesis of the KPSS test is that it does not contain a unit root (stationary).
The asterisk ** denotes the rejection of the null hypothesis at the 5% level of significance.

Table 7

Granger Causality Test for Samoa

Dependent Variable	F-statistics				ECT (t-statistics)
	ΔLRGDP	ΔLREM	ΔLPCR	ΔLXGS	
ΔLRGDP	–	44.9999***	63.0110***	54.8284***	-0.0395*** (-9.5262)
ΔLREM	1.7986	–	5.6151**	5.2093**	-0.0724 (-1.2865)
ΔLPCR	2.2965	5.8016**	–	11.0208***	-0.0185 (-0.3732)
ΔLXGS	3.7951*	6.1760**	19.4565***	–	-0.0165 (-0.4792)

Note: *, ** and *** indicate significance at 10%, 5% and 1% levels, respectively. Figures in parentheses are t-statistics.

variable. The linkage runs in only one direction, that is, from remittances, credit to private sector, exports of goods and services to real output.

Further, in the short-run we find that there is a bi-directional causality between real output and exports, remittances and exports, remittances and credit to private sector, and credit to private sector and exports, while there is

a uni-directional causality running from both remittances and credit and real output.

The results confirm the hypothesis that remittances play an important role in developing countries, depending upon the scale and intensity of financial sector development by adding liquidity in the banking system, which in turn promotes greater credit to the private sector, resulting in a rise in growth.

Conclusion and Policy Implications

Among the PICs, Tonga and Samoa receive large amounts of inward remittances from citizens and residents of their national origin overseas, which are primarily meant for supporting their families and relatives back home. The remittance inflows have been a great support to the island economies as well by adding to their real resources as well as international reserves. As foreign exchange earnings from traditional commodity exports, including copra and processed coconut cream and oil, have been falling with the prospects of tourism getting dimmer due to the continuing global economic downturn, remittances have assumed greater importance.

The resilience shown by remittance inflows to PICs has not only been striking but also encouraging. For example, remittance inflows to PICs rose during the short recession in 2000 and 2001, and again in 2005 and 2006, despite slowdowns in economic growth in Australia and New Zealand. Further, the current implementation of seasonal unskilled worker schemes agreed to by and between PICs and Australia and New Zealand is expected to provide a new and steady source of remittance inflows. The PICs have already hailed these initiatives as a major milestone towards the ambitious long-term goal of regional economic integration. Viewed in this context, the role of remittances in economic development of PICs has been receiving well-deserved attention.

This paper undertook an empirical investigation of the nexus between remittance and economic growth in Samoa during the past 28–year period (1981-2008). The results showed that remittances have helped Samoa to register greater economic growth. Specifically, remittances by adding to the liquidity in the banking system led to increases in credit to the private sector, which in turn resulted in greater economic activities and the resultant rise in exports, thereby leading to growth in GDP.

The policy implications are clear:

- the financial sector development is the key to growth as it channels remittance inflows into the banking system;

- decision makers in the government and financial sector should devise appropriate incentive measures to encourage the remittance recipient families to deposit them in financial institutions, which would contribute to accumulation of higher domestic savings and greater resource mobilization;
- incentive measures would include offering higher interest rates for remittances than are available for domestic currency deposits, on the lines offered by the South Asian countries attracting deposits from their non-resident nationals; and
- financial institutions should review the current structure of fees and other charges levied on inward remittances at both ends with a view toward removing the hurdles that come in the way of remitting the funds through formal financial channels for promoting greater flows of resources to developing countries.

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